

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1062226

Luminaire Tested: S125RDR-H850D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062226
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-48)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D940-X4F0-XX-UDD-BVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

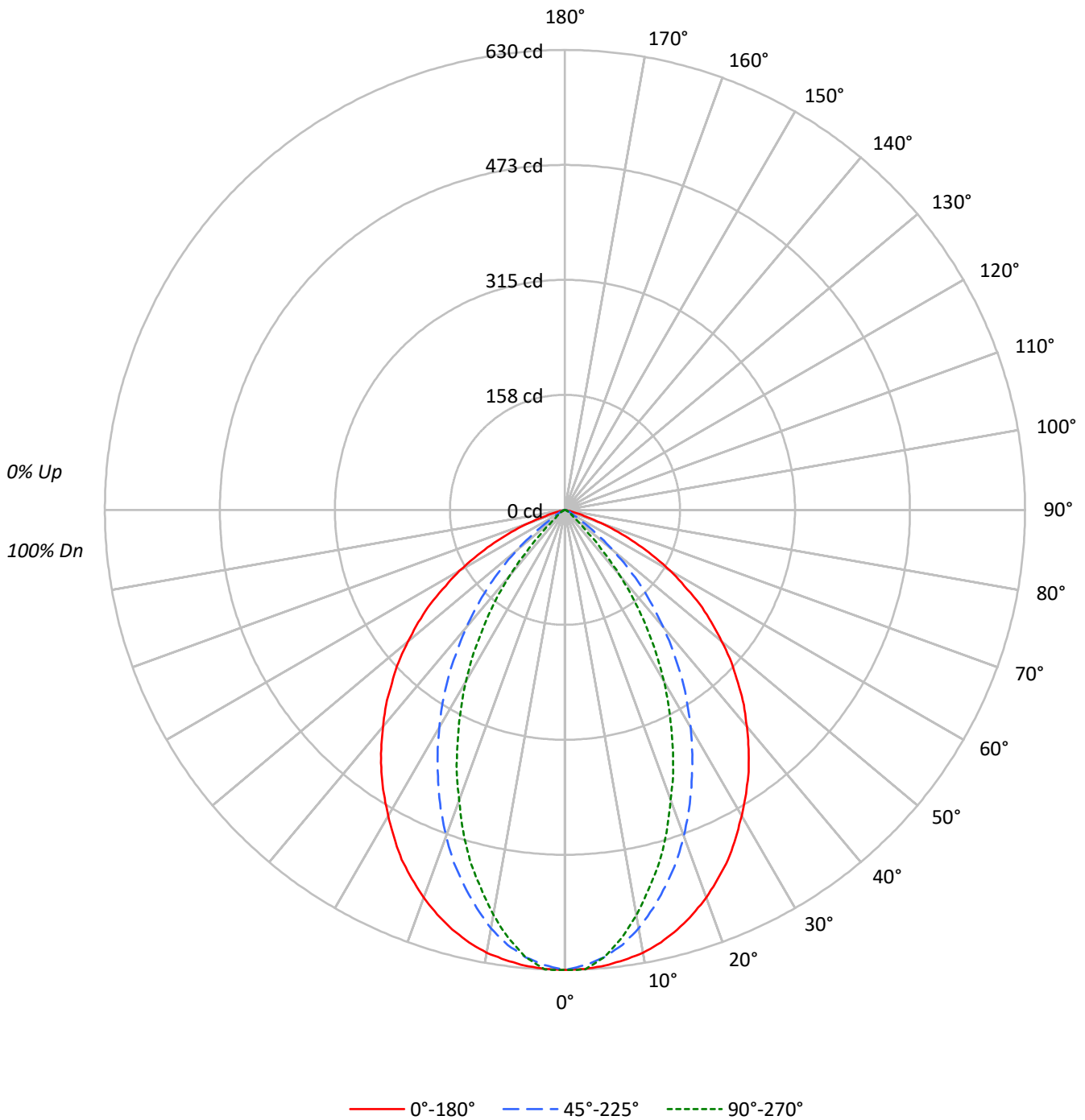
Lumens per Lamp: N/A
Luminaire Lumens: 814.1 lumens
Efficiency: N/A
Efficacy: 34.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	57	67	61	57	66	61	57	65	60	56	54
7	76	65	58	53	74	64	57	52	63	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4339	4339	4339
5°	4333	4253	4253
10°	4307	4069	3941
15°	4243	3799	3562
20°	4143	3485	3101
25°	4017	3120	2640
30°	3847	2737	2155
35°	3683	2334	1615
40°	3482	1883	1046
45°	3263	1425	454
50°	3001	908	169
55°	2705	400	120
60°	2290	172	80
65°	1733	109	41
70°	1055	50	16
75°	221	21	21
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3263 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	7.1
10°-20°	151.4	18.6
20°-30°	194.4	23.9
30°-40°	183.0	22.5
40°-50°	128.0	15.7
50°-60°	68.4	8.4
60°-70°	27.3	3.3
70°-80°	3.5	0.4
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	404.0	49.6
0°-40°	587.0	72.1
0°-60°	783.4	96.2
0°-90°	814.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	814.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	630	630	630	630	630	
5°	627	625	615	617	615	59
15°	595	576	533	508	500	168
25°	529	482	411	366	348	243
35°	438	368	278	214	192	273
45°	335	251	146	71	47	258
55°	225	138	33	12	10	200
65°	106	42	7	3	2	106
75°	8	2	1	1	1	16
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	630.2	630.2	630.2	630.2	630.2
2.5°	629.4	630.2	624.4	629.4	630.2
5°	626.9	625.2	615.3	616.9	615.3
7.5°	621.9	617.7	601.1	595.3	592.0
10°	616.1	606.9	582.0	569.5	563.7
12.5°	606.9	593.6	558.7	539.6	531.3
15°	595.3	576.2	532.9	508.0	499.7
17.5°	581.2	556.2	506.3	475.6	463.1
20°	565.4	532.1	475.6	439.0	423.2
22.5°	547.1	508.8	444.0	403.2	387.4
25°	528.8	482.2	410.7	365.8	347.5
27.5°	506.3	454.8	377.5	329.2	309.3
30°	483.9	427.3	344.2	291.8	271.0
32.5°	461.4	398.2	311.0	252.8	232.0
35°	438.2	368.3	277.7	214.5	192.1
37.5°	413.2	338.4	241.9	177.9	154.6
40°	387.4	309.3	209.5	142.2	116.4
42.5°	362.5	280.2	177.1	107.3	79.0
45°	335.1	251.1	146.3	70.7	46.6
47.5°	309.3	222.8	114.7	40.7	24.1
50°	280.2	193.7	84.8	21.6	15.8
52.5°	252.8	165.5	56.5	14.1	12.5
55°	225.3	138.0	33.3	11.6	10.0
57.5°	193.7	111.4	18.3	9.1	7.5
60°	166.3	87.3	12.5	6.7	5.8
62.5°	134.7	64.0	9.1	5.0	4.2
65°	106.4	42.4	6.7	3.3	2.5
67.5°	79.0	24.9	4.2	1.7	1.7
70°	52.4	13.3	2.5	0.8	0.8
72.5°	27.4	5.8	1.7	0.8	0.8
75°	8.3	2.5	0.8	0.8	0.8
77.5°	0.0	0.8	0.0	0.0	0.8
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.04	15.31	14.41	15.62	15.93	0.00	0.00	0.00	0.00	0.00
	3H	14.63	15.74	15.01	16.07	16.44	0.00	0.00	0.00	0.00	0.00
	4H	14.59	15.62	14.99	15.97	16.36	0.00	0.00	0.00	0.00	0.00
	6H	14.50	15.45	14.92	15.82	16.22	0.00	0.00	0.00	0.00	0.00
	8H	14.46	15.35	14.89	15.74	16.15	0.00	0.00	0.00	0.00	0.00
	12H	14.41	15.27	14.85	15.65	16.08	0.00	0.00	0.00	0.00	0.00
4H	2H	13.82	14.85	14.22	15.20	15.58	0.00	0.00	0.00	0.00	0.00
	3H	14.41	15.24	14.82	15.65	16.05	0.00	0.00	0.00	0.00	0.00
	4H	14.36	15.10	14.79	15.52	15.96	0.00	0.00	0.00	0.00	0.00
	6H	14.27	14.91	14.74	15.35	15.82	0.00	0.00	0.00	0.00	0.00
	8H	14.21	14.80	14.68	15.25	15.72	0.00	0.00	0.00	0.00	0.00
	12H	14.16	14.68	14.65	15.17	15.64	0.00	0.00	0.00	0.00	0.00
8H	4H	14.21	14.80	14.68	15.25	15.72	0.00	0.00	0.00	0.00	0.00
	6H	14.10	14.58	14.61	15.08	15.56	0.00	0.00	0.00	0.00	0.00
	8H	14.04	14.47	14.56	14.99	15.48	0.00	0.00	0.00	0.00	0.00
	12H	13.99	14.37	14.50	14.86	15.44	0.00	0.00	0.00	0.00	0.00
12H	4H	14.16	14.68	14.65	15.17	15.64	0.00	0.00	0.00	0.00	0.00
	6H	14.04	14.47	14.56	14.99	15.48	0.00	0.00	0.00	0.00	0.00
	8H	13.99	14.37	14.50	14.86	15.44	0.00	0.00	0.00	0.00	0.00